UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/357,726	07/21/1999	DAVID L. WOOD	1004-3633	9654

22120 7590 11/21/2003

ZAGORIN O'BRIEN & GRAHAM, L.L.P.
7600B N. CAPITAL OF TEXAS HWY.
SUITE 350
AUSTIN, TX 78731

EXAMINER	
MOORTHY, ARAVIND K	

ART UNIT	PAPER NUMBER
2131	10

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/357,726	WOOD ET AL.	
	Examiner	Art Unit	
	Aravind K Moorthy	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *8/25/03* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Response to Amendment

1. The examiner approves the amendment to the specification.

2. The examiner approves the amendment to the drawings.

Response to Arguments

3. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 2, 6, 10, 13, 15-17, 24-29 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Hailpern et al U.S. Patent No. 6,094,657.

As to claims 1, 17, 22, 24, 27-29, 36 and 38, Hailpern et al discloses validating a request message against a predefined request message specification [column 4, lines 61-67]. Hailpern et al discloses transmitting the validated request message [column 8, lines 24-63]. Hailpern et al discloses validating a response message against a predefined response message specification [column 8, lines 24-63]. Hailpern et al discloses that the response message corresponds to the validated request [column 8, lines 24-63]. Hailpern et al discloses transmitting the validated response [column 5, lines 16-25].

As to claim 2, Hailpern et al discloses wherein the request and response message specifications are predefined in accordance with valid request and response message constraints specific to an information resource, as discussed above.

As to claim 6, Hailpern et al discloses accessing an information resource in accordance with the validated request message and preparing the response message in accordance with the access [column 5, lines 46-60].

As to claim 10, Hailpern et al discloses the request and the response message validating are respectively performed at first and second secure data brokers on opposing sides of the security barrier; and wherein the validated request and response message transmissions are between the first and second secure data brokers [column 8, lines 24-63].

As to claim 13, Hailpern et al discloses at least one of the validated request message transmitting and the validated response message transmitting is via a secure protocol [column 10, lines 27-67].

As to claim 15, Hailpern et al discloses that the security barrier includes a firewall [column 4, lines 33-38].

As to claim 16, Hailpern et al discloses that the security barrier includes a secure communication channel between servers [column 4, lines 33-38].

As to claim 25, Hailpern et al discloses a second data broker on the second side of the security barrier, wherein, in response to an access targeting the information resource, the second data broker validates a response message against a predefined response message specification and forwards only validated response messages across the security barrier [column 6, lines 16-67].

As to claim 26, Hailpern et al discloses an information resource [column 7, lines 31-49].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hailpern et al U.S. Patent No. 6,094,657 as applied to claim 1 above, and further in view of Applied Cryptography (hereinafter Schneier).

As to claim 3, Hailpern et al does not teach that at least one of the request and response message specifications is cryptographically secured.

Schneier teaches the use and benefits of encryption, page 2.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time invention was made to have had packet filter instructions cryptographically secured.

It would have been obvious to modify Hailpern by the teaching of Schneier because cryptography offers authentication, integrity and nonrepudiation, page 2.

6. Claims 4, 5, 7-9, 14, 18-23, 37 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hailpern et al U.S. Patent No. 6,094,657 as applied to claims 1 and 17 above, and further in view of Bobo, II U.S. Patent No. 5,870,549.

As to claims 4, 5, 7-9, 14, 19, 20, 22, 37 and 39-41, Hailpern teaches receiving, at an application proxy, an access request targeting an information resource, as discussed above. Hailpern teaches transmitting the request message to a secure data broker for the request message validating, as discussed above.

Hailpern does not teach formatting the request message in a structured language corresponding to the request message specification.

Bobo teaches the translation of messages into XML format [column 21, lines 37-42].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have the gateway as taught by Hailpern to format the outgoing packets to the XML structured language.

It would have been obvious to have modified Hailpern et al by the teaching of Bobo because XML is easier to write applications for, easier to understand, and more suited to delivery and inter-operability over the Web [column 21 lines 33-37].

As to claim 18, Hailpern teaches accessing the information resource in accordance with the validated access request, as discussed above/

As to claims 21 and 23, Hailpern teaches accessing the information resource in accordance with the validated access request from a client and supplying the client with a response in accordance with the validated response [column 9 lines 17-50].

7. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hailpern et al U.S. Patent No. 6,094,657 as applied to claim 1 above, and further in view of Ottensooser U.S. Patent No. 5,905,856.

As to claims 11 and 12, Hailpern teaches rejecting packets if it is not defined by the rules [column 7, lines 2-33]. The Hailpern et al teaches forwarding a response message without transmission of the request message across the security barrier [column 6, lines 24-27].

Hailpern does not teach parsing the request message using Data Type Definitions (DTDs) encoding a hierarchy of valid tag-value pairs in accordance with syntax of a valid request message.

Ottensooser teaches parsing the request message using Data Type Definitions (DTDs) encoding a hierarchy of valid tag-value pairs in accordance with syntax of a valid request message [column 7, lines 58-64; column 10 line 66 to column 11 line 30].

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hailpern et al so that gateway of Hailpern would have parsed the request message using data type definitions, encoding a hierarch of valid-tag pairs in accordance with the syntax of a valid request message. If the request message were not successfully parsed, an alert message would have been forwarded across the firewall.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hailpern et al by the teaching of Ottensooser because the

structure permits the use of a simple language that allows the user to write a set of tests that closely match the business activities under scrutiny. The language is sufficiently high level so that the user does not have to be involved in the highly technical "behind the scenes" type work that actually tells the computer application what to do. Other products on the market are not as advanced and rely on the skills of computer programmers to write test plans rather than business users [column 13, lines 47-58].

8. Claims 30-33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al U.S. Patent No. 5,710,889 in view of Chen et al U.S. Patent No. 5,602,918.

As to claims 30, 32 and 34, Clark discloses data broker code and parser code executable on a first network server. Clark discloses an information source [repository **11**]. Clark discloses that the data broker code includes instructions executable as a first instance thereof to receive access requests in a structured language corresponding to a predefined request message specification and to forward validated ones of the access requests toward the information resource. Clark discloses the parser code includes instructions executable as a first instance thereof to validate the received access request against the predefined request message specifications [column 5 line 63 to column 6 line 29; column 10 lines 53-61].

Clark does not teach a security barrier separating the first network server and the information resource.

Chen teaches a system and method for establishing secured communications pathways across an open unsecured network, without compromising the security of any parties to the communication that involves establishing secured gateways or firewalls between the Internet and any party which desires protection, see abstract.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have a firewall between the first network server and the information source. Only the validated access requests would cross the firewall toward the information resource.

The motivation to modify Clark by the teaching of Chen is because a firewall provides a safe passage between the secured network and the party on the public network [column 2 lines 15-21].

As to claim 31, Clark discloses an encoding of the predefined request message specification [column 7 lines 53-63].

As to claim 33, Clark discloses an encoding of the predefined response message specification [column 8 lines 31-35].

As to claim 35, Clark discloses the computer program code is transmitted in at least one computer readable medium from an electronic storage medium and on a network [column 5 lines 30-48].

9. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al U.S. Patent No. 5,710,889 and Chen et al U.S. Patent No. 5,602,918 as applied to claim30 above, and further in view of Bobo, II U.S. Patent No. 5,870,549.

The Clark-Chen combination does not teach that the application proxy code includes instructions executable to format the access requests in accordance with the structured language corresponding to the predefined request message specification.

Bobo teaches instructions executable to format the access requests in accordance with the structured language corresponding to the predefined request message specification.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have the application proxy code have instructions to format the access requests in accordance with the structured language corresponding to the predefined request message specification [column 21, lines 37-42].

It would have been obvious to have modified the Clark-Chen combination by the teaching of Bobo because XML is easier to write applications for, easier to understand, and more suited to delivery and inter-operability over the Web [column 21 lines 33-37].

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aravind K Moorthy whose telephone number is 703-305-1373. The examiner can normally be reached on Monday-Friday, 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-1373.

Aravind K Moorthy
November 14, 2003

AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100